



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

November 01, 2013

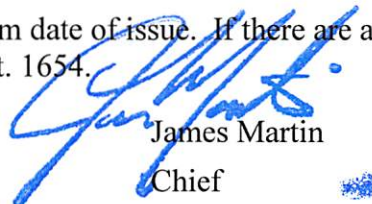
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4104008, issued to PETROLEUM DEVELOPMENT CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.


James Martin
Chief

Operator's Well No: MULLOOLY 2
Farm Name: YOCHYM, TONY & STANLEY
API Well Number: 47-4104008
Permit Type: Plugging
Date Issued: 11/01/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

4104008P
1) Date 8/29/2013, 20_____
2) Operator's
Well No. Mullooly #2
3) API Well No. 47-041 - 04008

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil ____ / Gas X / Liquid injection ____ / Waste disposal ____ /
(If "Gas, Production X or Underground storage ____) Deep ____ / Shallow X
- 5) Location: Elevation 1220' Watershed Washburn Run of West Fork River
District Courthouse 02 County Lewis 41 Quadrangle Roanoke 7.5' 580
Petroleum Development Corporation
- 6) Well Operator PDC Mountaineer LLC 7) Designated Agent Jamie Haga
Address 120 Genesis Blvd Address 120 Genesis Blvd
Bridgeport WV 26330 Bridgeport WV 26330
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Barry Stollings Name Hydrocarbon Well Service
Address 28 Conifer Drive Address DRAWER 995
Bridgeport WV 26330 Buckhannon, West Virginia, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:

Check TD, Release packer, pull 4.5" casing. FILL HOLE W/ GEL

Set cement plug from TD to 2427' then from 1289' to 1189' 870'

~~Swab and set monument~~

SET CEMENT PLUG FROM 212' TO SURFACE.

SET MONUMENT.

FRESH WATER
1047'

COAL 920-924

COAL 159-162

9 WY

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OCT 03 2013

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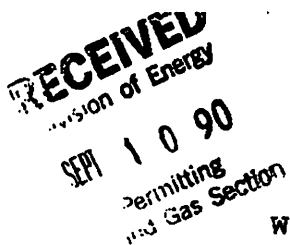
Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

Barry Stollings

Date

10-2-13



State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

4104008P
13-Jul-90
API # 47- 41-C4008

Well Operator's Report of Well Work

Farm name: YOCHYM, ROSE A.

Operator Well No.: MULLOOLY 2

LOCATION: Elevation: 1230.00 Quadrangle: ROANOKE

District: COURT HOUSE County: LEWIS
Latitude: 1100 Feet South of 39 Deg. 0 Min. 0 Sec.
Longitude 9650 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: PETROLEUM DEVELOPMENT COR
P. O. BOX 26
BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: STEVE CASEY

Permit Issued: 07/12/90

Well work Commenced: 08/02/90

Well work Completed: 08/06/90

Verbal Plugging

Permission granted on:

Rotary Cable Rlg

Total Depth (feet) 2527'

Fresh water depths (ft)

1047'

Salt water depths (ft)

Is coal being mined in area (Y/N)? N

Coal Depths (ft): 159-162; 920-924

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	30'	.	
8 5/8"	1203'	1203'	290 sks
4 1/2"	2533'	2533'	

OPEN FLOW DATA

Producing formation Gordon Pay zone depth (ft) 2520-27
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow 5.2 MMCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure 900 psig (surface pressure) after 72 Hours
Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns

Date: August 28, 1990

60

Mulooly #2

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
Well came	in natural					

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1800	Damp H2O @ 1047'
Little Lime	1800	1828	coal 159-162; 920-924
sand, shale	1828	1846	gas chk @ 2310' No Show
Big Lime	1846	1880	gas chk @ 2527' 20/10-7"Mer
Big Injun	1880	2032	gas chk @ 2527'10/10-7"Mer
sand, shale	2032	2520	
Gordon	2520	2527	T. D. 2527'8/10-7"Mer

4104008P

WW-4A
Revised 6-07

1) Date: 8/29/2013
2) Operator's Well Number
Mullooly #2

3) API Well No.: 47 - 041 - 04008

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name Charles G Yochym ✓	Name N/A
Address 2060 Skin Creek Rd	Address
Weston WV 26452	
(b) Name	(b) Coal Owner(s) with Declaration
Address	Name N/A
	Address
(c) Name	Name
Address	Address
6) Inspector Barry Stollings	(c) Coal Lessee with Declaration
Address 28 Conifer Drive Bridgeport WV 26330	Name N/A
	Address
Telephone 304-552-4194	

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

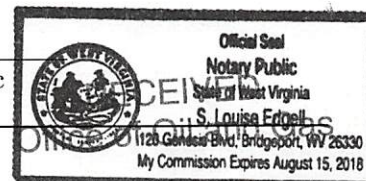
Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Petroleum Development Corporation
Well Operator PDC Mountaineer LLC
By: Jamie Haga
Its: Agent
Address 120 Genesis Blvd
Bridgeport WV 26330
Telephone 304-842-3597

Subscribed and sworn before me this 1st day of October, 2013
S. Louise Edgell Notary Public
My Commission Expires August 15, 2018

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



OCT 03 2013
WV Department of
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7012 1010 0001 3085 5165

U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)		
For delivery information visit our website at www.usps.com		
WESTON WV 26452		
OFFICIAL USE		
Postage	\$ 1.52	0098
Certified Fee	\$ 3.10	04
Return Receipt Fee (Endorsement Required)	\$ 2.55	Postmark here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 7.17	10/02/2013
Sent To Charles G. Yochym		
Street, Apt. No., or PO Box No. 2060 SKIN CREEK RD		
City, State, ZIP+4 Weston WV 26452		
PS Form 3800, August 2006		See Reverse for Instructions

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OCT 03 2013
WV Department of
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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Petroleum Development Corporation
PDC Mountaineer LLC OP Code 494494839

Watershed Washburn Run of West Fork River Quadrangle Roanoke 7.5'

Elevation 1220' County Lewis District Courthouse

Description of anticipated Pit Waste: NO PIT USED WILL USE TANKS (Gel, Cement)

Will a synthetic liner be used in the pit? No

Proposed Disposal Method For Treated Pit Wastes:

- ☐ Land Application
☒ Underground Injection (UIC Permit Number See attached Sheet)
☐ Reuse (at API Number _____)
☐ Off Site Disposal (Supply form WW-9 for disposal location)
☐ Other (Explain _____)

Proposed Work For Which Pit Will Be Used:

- ☐ Drilling ☐ Swabbing
☐ Workover ☒ Plugging
☐ Other (Explain No pit using tanks)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature _____

Company Official (Typed Name) Jamie Haga

Company Official Title Agent

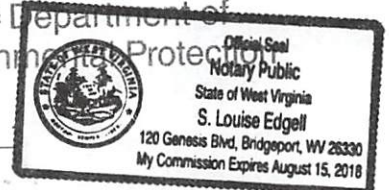
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Office of Oil and Gas

Subscribed and sworn before me this 1st day of October, 20 13 OCT 03 2013

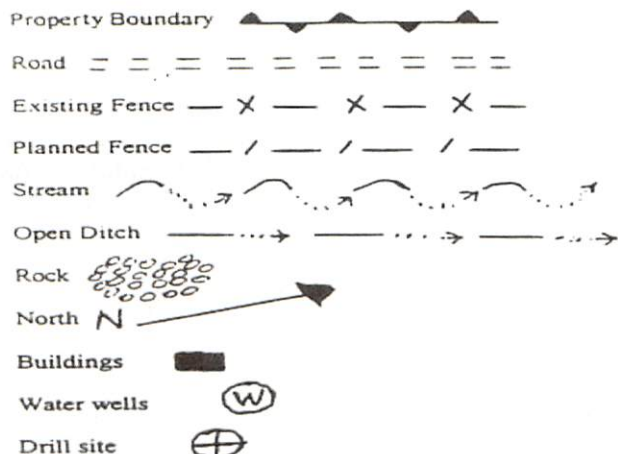
S. Louise Edgell

Notary Public
Environmental Protection

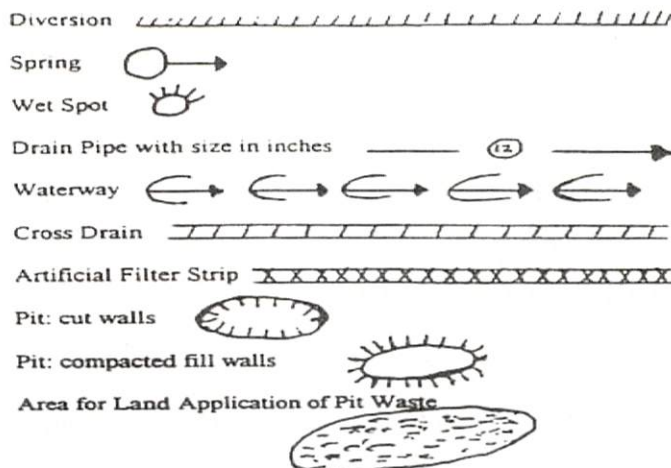
My commission expires August 15, 2018



41040081



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.5 Prevegetation pH _____
Lime 3 Tons/acre or to correct to pH 6.5
Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)
Mulch 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Timothy	40	SAME	
Orchard Grass	12		
Redtop Clover	5		

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Barry Shillings

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OCT 03 2013

Comments: _____

WV Department of
Environmental Protection

Title: inspector

Date: 10-2-13

Field Reviewed? (☒) Yes (☐) No

Disposal Well Information Sheet*(Including Lat./Long. , Operator, and API #)*

DISPOSAL WELL NAME	API WELL #	STATE	COUNTY	TWP
Ohio Oil Gathering Corp. - Bells Run	34-167-2-9395	Ohio	Washington	Newport
Long Run Disposal Well	34-167-2-9658	Ohio	Washington	Newport
Newell Run Disposal Well	34-167-2-9685	Ohio	Washington	Newport

Operator: Ohio Oil Gathering Corp.

DISPOSAL WELL NAME	API WELL #	STATE	COUNTY	TWP
BW # 4	47-073-02523	WV	Pleasants	
Greens Run	47-073-02540	WV	Pleasants	

Operator: Appalachian Oil Purchasers

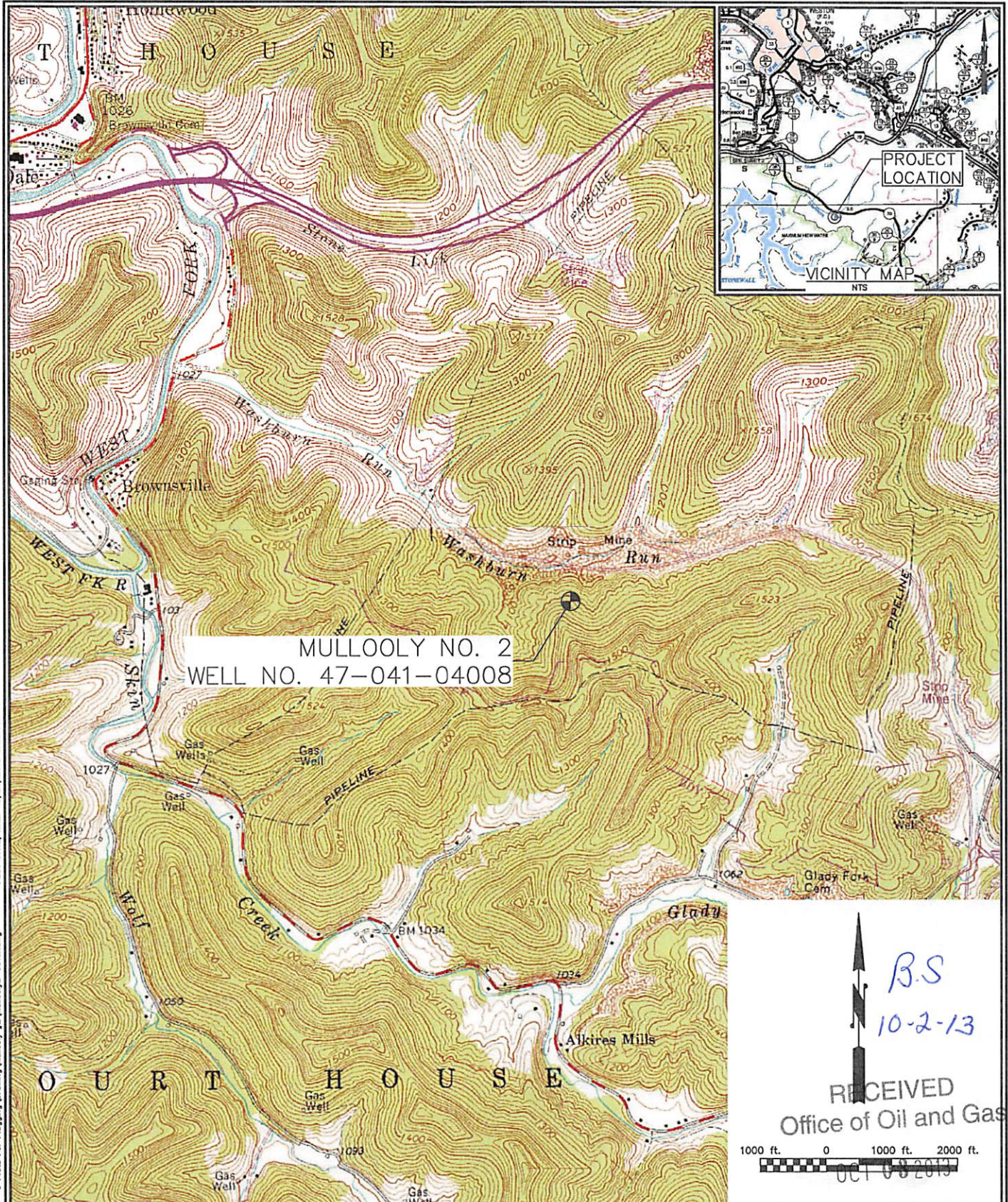
Coordinates	Lat /Long
Ohio Oil Gathering Corp. -Bells Run	39.387 N, -81.289 W
Long Run Disposal Well	39.391 N, -81.317 W
Newell Run Disposal Well	39.399 N, -81.273 W
BW# 4	39 22'20.55 N, -81 14'47.70"
Greens Run	

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4104008 P



CAD FILE: R:\030-2384-PDC-6-Plots For Plugging\Drawing\Mullooly_#2\Mullooly2-Cover.dwg
PLOT DATE/TIME: 9/25/2013 9:30 AM



PDC MOUNTAINEER

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BOULEVARD - BRIDGEPORT, WV 26330
PHONE: 304-624-4108
FAX: 304-624-7831

PDC MOUNTAINEER, LLC
WELL PLUGGING PLAN FOR
MULLOOLY NO. 2
LEWIS COUNTY, WV

WV Department of Environmental Protection
SHEET NO. 1

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VICINITY MAP - ROANOKE & WESTON, WV 7.5' QUADS

4104008P

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-041-04008 WELL NO.: Mullooly 2
FARM NAME: Yochym
RESPONSIBLE PARTY NAME: Petroleum Development Corp.
COUNTY: Lewis DISTRICT: Courthouse
QUADRANGLE: Roanoke 7.5'
SURFACE OWNER: Charles G Yochym
ROYALTY OWNER: Mullooly Heirs
UTM GPS NORTHING: 4316585.514
UTM GPS EASTING: 547566.328 GPS ELEVATION: 1220

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
Survey grade GPS x: Post Processed Differential 0.02M
Real-Time Differential 0.02M
Mapping Grade GPS : Post Processed Differential
Real-Time Differential

4. **Letter size copy of the topography map showing the well location.**
I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature] Agent 10/21/13
Signature Title Date

Received
OCT 21 2013
Office of Oil and Gas
WV Dept. of Environmental Protection